IEEE *Xplore*

Welcome United States Patent and Trademark Office

Search Session History   BROWSE   SEARCH   IEEE XPLORE GUIDE

Tue, 4 Oct 2005, 3:36:41 PM EST

Edit an existing query or
compose a new query in the
Search Query Display.

Search Query Display

Run Search   Reset

**Select a search number (#)
to:**

- Add a query to the Search
  Query Display
- Combine search queries
  using AND, OR, or NOT
- Delete a search
- Run a search

Recent Search Queries

#1 ((backoff window<in>metadata) <and>
(collision<in>metadata))<and> (number of
users<in>metadata)

#2 ((backoff window<in>metadata) <and>
(collision<in>metadata))<and> (number of
users<in>metadata)

#3 ((backoff window<in>metadata) <and>
(collision<in>metadata))<and> (number of
users<in>metadata)

#4 (backoff window<in>metadata)

#5 (backoff window<in>metadata)

#6 (backoff window<in>metadata)

#7 (backoff window<in>metadata)

Clear Session History

Help   Contact Us   Privacy & :

Indexed by
Inspec

Subscribe (Full Service)   Register (Limited Service, Free)   Login

Search: ⦿ The ACM Digital Library   ○ The Guide

"backoff window" collision "average number of users"

🖎 Feedback Report a problem Satisfaction survey

Terms used **backoff window collision average number of users**   Found **118** of **161,645**

Sort results by	relevance	
Display results	expanded form	

❖ Save results to a Binder

🗐 Search Tips

🖫 Open results in a new window

Try an Advanced Search
Try this search in The ACM Guide

Results 1 - 20 of 118   Result page: **1** 2 3 4 5 6   next

Relevance scale ☐ ▭ ▨ ▩ ▣

1 **Dynamic tuning of the IEEE 802.11 protocol to achieve a theoretical throughput limit**   ▨
Frederico Calì, Marco Conti, Enrico Gregori
December 2000 **IEEE/ACM Transactions on Networking (TON)**, Volume 8 Issue 6

Full text available: 📄 pdf(381.15 KB)   Additional Information: full citation, references, citings

Keywords: multiple access protocol (MAC), performance analysis, protocol capacity, wireless LAN (WLAN)

2 **A capacity analysis for the IEEE 802.11 MAC protocol**   ▨
Y. C. Tay, K. C. Chua
March 2001 **Wireless Networks**, Volume 7 Issue 2

Full text available: 📄 pdf(160.24 KB)   Additional Information: full citation, citings, index terms

3 **System design methodologies: ESACW: an adaptive algorithm for transmission power**   ▨
reduction in wireless networks
Hang Su, Peiliang Qiu, Qinru Qiu
August 2004 **Proceedings of the 2004 international symposium on Low power electronics and design**

Full text available: 📄 pdf(158.46 KB)   Additional Information: full citation, abstract, references, index terms

In this paper we propose a new algorithm for reducing the energy dissipation of a wireless ad-hoc network. We first show that the performance and energy dissipation is a function of the probability of packet collision, which can be varied by changing the minimum contention window (CWmin) parameter. Then we propose an algorithm, based on the IEEE 802.11 protocol, which can dynamically adjust CWmin for better performance and power. Experimental results show that, comparing to ...

Keywords: distributed coordination function, low power, wireless ad hoc network

4 **A priority MAC protocol to support real-time traffic in ad hoc networks**   ▨
Jang-Ping Sheu, Chi-Hsun Liu, Shih-Lin Wu, Yu-Chee Tseng
January 2004 **Wireless Networks**, Volume 10 Issue 1

Full text available: 📄 pdf(264.87 KB)   Additional Information: full citation, abstract, references, citings, index terms

Carrier sense multiple access and its variants have been widely used in mobile ad hoc

networks. However, most existing access mechanisms cannot guarantee quality for real-time traffic. This paper presents a distributed medium access control protocol that provides multiple priority levels for stations to compete for the wireless channel. One common channel is assumed to be shared by all stations. Stations are assumed to be able to hear each other (i.e., the network is fully connected). The channe ...

Keywords: carrier sense multiple access (CSMA), medium access control (MAC), mobile ad hoc network (MANET), quality-of-service (QoS), wireless communications

5 Routing & performance modelling: Adaptive service differentiation for QoS provisioning in IEEE 802.11 wireless ad hoc networks
A. Ksentini, M. Naimi, A. Nafaa, M. gueroui
October 2004 **Proceedings of the 1st ACM international workshop on Performance evaluation of wireless ad hoc, sensor, and ubiquitous networks**
Full text available: pdf(1.11 MB)   Additional Information: full citation, abstract, references, index terms

The proposed scheme IEEE 802.11e draft standard defines new MAC protocol for QoS in wireless networks, namely HCF and EDCF. EDCF is a contention based channel access scheme and is part of HCF for infrastructure networks and may be used as a separate coordination function for wireless Ad-hoc networks. In this paper we propose to enhance EDCF with a dynamic traffic class's management protocol, which allows firstly, a guarantee of QoS to the sensitive applications some as the network state. Secondl ...

Keywords: QoS, ad hoc network, wireless LAN

6 CROMA: an enhanced slotted MAC protocol for MANETs
Marceau Coupechoux, Bruno Baynat, Christian Bonnet, Vinod Kumar
February 2005 **Mobile Networks and Applications**, Volume 10 Issue 1-2
Full text available: pdf(781.36 KB)   Additional Information: full citation, abstract, references, index terms

TDMA based MAC protocols can provide a very good utilization of the shared radio resources, especially at high input loads, in synchronized mobile ad hoc networks (MANETs). Global positioning systems like GPS or GALLILEO should provide a very good timing accuracy for synchronization of nodes. This paper presents a new medium access protocol for mobile ad hoc networks, called CROMA. CROMA is collision-free and receiver-oriented. It operates in a slotted environment, in a dynamic and distributed w ...

Keywords: MAC, TDMA, conflict-free protocol, dynamic slot allocation, mobile ad hoc networks, scheduling

7 The broadcast storm problem in a mobile ad hoc network
Yu-Chee Tseng, Sze-Yao Ni, Yuh-Shyan Chen, Jang-Ping Sheu
March 2002 **Wireless Networks**, Volume 8 Issue 2/3
Full text available: pdf(561.81 KB)   Additional Information: full citation, abstract, references, citings, index terms

Broadcasting is a common operation in a network to resolve many issues. In a mobile ad hoc network (MANET) in particular, due to host mobility, such operations are expected to be executed more frequently (such as finding a route to a particular host, paging a particular host, and sending an alarm signal). Because radio signals are likely to overlap with others in a geographical area, a straightforward broadcasting by flooding is usually very costly and will result in serious redundancy, contenti ...

Keywords: broadcast, communication, mobile ad hoc network (MANET), mobile computing, wireless network

8 The broadcast storm problem in a mobile ad hoc network

Sze-Yao Ni, Yu-Chee Tseng, Yuh-Shyan Chen, Jang-Ping Sheu

August 1999 **Proceedings of the 5th annual ACM/IEEE international conference on Mobile computing and networking**

Full text available: pdf(1.18 MB)   Additional Information: full citation, references, citings, index terms

Keywords: broadcast, communication, mobile ad hoc network (MANET), mobile computing, wireless network

9 Spread-sprectrum CDMA packet radio MAC protocol using channel overload detection and blocking

Garth Judge, Fambirai Takawira·

December 2000 **Wireless Networks**, Volume 6 Issue 6

Full text available: pdf(283.75 KB)   Additional Information: full citation, abstract, references, index terms

An analytical and simulation performance evaluation is presented for a multi‐access protocol for a data packet radio network with a limited user capacity. The network employs direct‐sequence code division multiple access (DS‐CDMA) in a centralised channel load‐sensing scheme with channel overload (collision) detection and blocking via a separate ancillary channel state information broadcast system. Traffic models that incorporate both a finite populat ...

10 A class of tree algorithms with variable message length

D. P. Gerakoulis, T. N. Saadawi, D. L. Schilling

June 1984 **ACM SIGCOMM Computer Communication Review , Proceedings of the ACM SIGCOMM symposium on Communications architectures and protocols: tutorials & symposium**, Volume 14 Issue 2

Full text available: pdf(453.28 KB)   Additional Information: full citation, abstract, references, index terms

In this paper we present and analyze a class of tree algorithms with variable message length. First we analyze the algorithm according to which a message, consisting of a number of packets, is transmitted continuously after the successful transmission of its first packet, referred to as the tree algorithm with variable message length. The analysis of the algorithm is presented for the two cases of small number of users and of large number of users. In both cases the analysis shows a conside ...

11 Performance study of access control in wireless LANs—IEEE 802.11 DFWMAC and ETSI RES 10 Hiperlan

Jost Weinmiller, Morten Schläger, Andreas Festag, Adam Wolisz

June 1997 **Mobile Networks and Applications**, Volume 2 Issue 1

Full text available: pdf(499.03 KB)   Additional Information: full citation, abstract, references, citings, index terms

Currently two projects are on their way to standardize physical layer and medium access control for wireless LANs—IEEE 802.11 and ETSI RES 10 Hiperlan. This paper presents an introduction to both projects focussing on the applied access schemes. Further we will present our simulation results, analyzing the performance of both access protocols depending on the number of stations and on the packet size, evaluating them regarding their capability to support QoS parameters, regarding the ...

12 Random access with large propagation delay

Ramaswamy Murali, Brian L. Hughes

December 1997 **IEEE/ACM Transactions on Networking (TON)**, Volume 5 Issue 6

Full text available: pdf(443.40 KB)   Additional Information: full citation, references, index terms

Keywords: forward-error-correction, large propagation delay, packet broadcast channel, random access, slotted ALOHA

13 Interference evaluation of Bluetooth and IEEE 802.11b systems

N. Golmie, R. E. Van Dyck, A. Soltanian, A. Tonnerre, O. Rébala

May 2003 **Wireless Networks**, Volume 9 Issue 3

Full text available: 📄 pdf(203.73 KB)   Additional Information: full citation, abstract, references, index terms

The emergence of several radio technologies, such as Bluetooth and IEEE 802.11, operating in the 2.4 GHz unlicensed ISM frequency band, may lead to signal interference and result in significant performance degradation when devices are colocated in the same environment. The main goal of this paper is to evaluate the effect of mutual interference on the performance of Bluetooth and IEEE 802.11b systems. We develop a simulation framework for modeling interference based on detailed MAC and PHY model ...

Keywords: Bluetooth, IEEE 802.11b, WPANs, interference

14 Wireless home networks: Performance analysis and enhancement for the current and future IEEE 802.11 MAC protocols

Yang Xiao, Jon Rosdahl

April 2003 **ACM SIGMOBILE Mobile Computing and Communications Review**, Volume 7 Issue 2

Full text available: 📄 pdf(1.33 MB)   Additional Information: full citation, abstract, references

The IEEE 802.11 specifications provide up to 54 Mbps data rates, respectively. The industry is seeking Higher Data Rates (HDR's) over 100Mbps for IEEE 802.11a extension. However, the medium access control (MAC), which they are based upon, is the same. In this paper, we explore the overhead of HDR's to find out whether the MAC is good enough for the increasing data rates and what to expect as the industry seeks higher data rates. We prove that a theoretical throughput upper limit and a theoretica ...

15 Routing 1: A secure ad-hoc routing approach using localized self-healing communities

Jiejun Kong, Xiaoyang Hong, Yunjung Yi, Joon-Sang Park, Jun Liu, Mario Gerla

May 2005 **Proceedings of the 6th ACM international symposium on Mobile ad hoc networking and computing MobiHoc '05**

Full text available: 📄 pdf(222.15 KB)   Additional Information: full citation, abstract, references, index terms

Mobile ad hoc networks (MANETs) are vulnerable to routing attacks, especially attacks launched by non-cooperative (selfish or compromised) network members and appear to be protocol compliant. For instance, since packet loss is common in mobile wireless networks, the adversary can exploit this fact by hiding its malicious intents using compliant packet losses that appear to be caused by environmental reasons.In this paper we study two routing attacks that use non-cooperative network members and d ...

Keywords: community-based security, self-healing ad hoc routing

16 Dynamic adaptive routing for a heterogeneous wireless network

Eric Hsiao-Kuang Wu, Yi-Zhan Huang

June 2004 **Mobile Networks and Applications**, Volume 9 Issue 3

Full text available: 📄 pdf(822.01 KB)   Additional Information: full citation, abstract, references, index terms

This paper presents an integrated architecture of a Heterogeneous Wireless Network (HWN) and a dynamic adaptive routing protocol (DARP) for a HWN. To allow mobile users versatile communication with anyone or any device at any place and anytime, HWN integrates cellular network with an ad hoc network (independent Basic Service Set) in wireless local area network (WLAN) and reserves advantages of sizable coverage in a cellular network and high data rate in deployable ad hoc network. It also enlarge ...

Keywords: QoS, QoS routing, ad hoc network, cellular network, heterogeneous network, heterogeneous wireless network, hybrid network, multihop network, routing, wireless local network, wireless network

17 <u>A look at several memory management units, TLB-refill mechanisms, and page table organizations</u>
Bruce L. Jacob, Trevor N. Mudge
October 1998 **Proceedings of the eighth international conference on Architectural support for programming languages and operating systems**, Volume 32 , 33 Issue 5 , 11

Full text available: pdf(1.90 MB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index terms</u>

Virtual memory is a staple in modern systems, though there is little agreement on how its functionality is to be implemented on either the hardware or software side of the interface. The myriad of design choices and incompatible hardware mechanisms suggests potential performance problems, especially since increasing numbers of systems (even embedded systems) are using memory management. A comparative study of the implementation choices in virtual memory should therefore aid system-level designers ...

18 <u>Deployment and testbeds: Enhancement of a WLAN-based internet service in Korea</u>
Youngkyu Choi, Jeongyeup Paek, Sunghyun Choi, Go Woon Lee, Jae Hwan Lee, Hanwook Jung
September 2003 **Proceedings of the 1st ACM international workshop on Wireless mobile applications and services on WLAN hotspots**
Full text available: pdf(774.23 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

A wireless LAN (WLAN)-based Internet service, called NESPOT, of Korea Telecom (KT), the biggest telecommunication and Internet service company in Korea, has been operational since early 2002. As the numbers of subscribers and deployed access points (APs) increase, KT has been endeavoring to improve its service quality as well as the network management. In this paper, we introduce a joint effort between Seoul National University (SNU) and KT to achieve it. We have been addressing two major issues ...

Keywords: IEEE 802.11, LAN, hotspot service, wireless internet service provider (WISP)

19 <u>Bridge channel access algorithms for integrated services ethernets</u>
Jim M. Ng, Edward Chan
October 1991 **ACM SIGCOMM Computer Communication Review**, Volume 21 Issue 5
Full text available: pdf(554.89 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>index terms</u>

To provide integrated data/voice services on an inter-connected CSMA/CD type network, a proper channel access algorithm must be used by the bridge in order to minimize the end-to-end delay. Two algorithms, a static aggressive mechanism and a load adaptive dynamic mechanism, are presented and compared with the algorithm specified in the IEEE 802.3 standard. The performance of each algorithm is analyzed, and its suitability for the integrated service environment is evaluated.

20 <u>MR²RP: the multi-rate and multi-range routing protocol for IEEE 802.11 ad hoc wireless networks</u>
Shiann-Tsong Sheu, Yihjia Tsai, Jenhui Chen
March 2003 **Wireless Networks**, Volume 9 Issue 2
Full text available: pdf(252.69 KB)   Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

This paper discusses the issue of routing packets over an IEEE 802.11 *ad hoc* wireless network with multiple data rates (1/2/5.5/11 Mb/s). With the characteristics of modulation schemes, the data rate of wireless network is inversely proportional with the transmission distance. The conventional shortest path of minimum-hops approach will be no longer

suitable for the contemporary multi-rate/multi-range wireless networks (MR²WN). In this paper, we will propose an efficient delay- ...

Keywords: ad hoc, local area network (LAN), medium access control (MAC), routing, wireless

Results 1 - 20 of 118   Result page: **1**   2   3   4   5   6   next

Useful downloads: Adobe Acrobat   QuickTime   Windows Media Player   Real Player

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	0	709/20.ccls.	USPAT	OR	OFF	2005/03/04 11:17
S2	782	709/230.ccls.	USPAT	OR	OFF	2005/03/04 11:17
S3	378	709/235.ccls.	USPAT	OR	OFF	2005/03/04 11:17
S4	319	709/234.ccls.	USPAT	OR	OFF	2005/03/04 11:17
S5	2492	709/230-235.ccls.	USPAT	OR	OFF	2005/03/04 11:17
S6	2949	370/229-238.ccls.	USPAT	OR	OFF	2005/03/04 11:18
S7	4	backoff adj window$2	USPAT	OR	OFF	2005/03/04 11:18
S8	63	contention adj window$2	USPAT	OR	OFF	2005/03/04 11:18
S9	3216967	@ad<"20010503"	USPAT	OR	OFF	2005/03/04 11:18
S10	2492	S2 S3 S4 S5 S5	USPAT	OR	OFF	2005/03/04 11:18
S11	5155	S2 S3 S4 S5 S6	USPAT	OR	OFF	2005/03/04 11:18
S12	4925	S9 and S11	USPAT	OR	OFF	2005/03/04 11:18
S13	67	S7 or S8	USPAT	OR	OFF	2005/03/04 11:18
S14	1	S12 and S13	USPAT	OR	OFF	2005/03/04 11:19
S16	179	collision near2 window$2	USPAT	OR	OFF	2005/03/04 11:19
S17	14	S16 and S12	USPAT	OR	OFF	2005/03/04 11:20
S18	14256079	@ad<"20010503"	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:19
S19	159	backoff with window	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:20
S20	3689924	user occupant client member host partner administrator	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:21
S21	6718566	network system web cluster hub switch router	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:21
S22	363419	collision interruption disruption	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:22

S23	4329399	packet network data frame header	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:22
S24	794375	S22 interference	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:22
S25	1270501	S20 same S21	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:22
S26	45060	S23 with S22	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:22
S27	85220	S23 with S24	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:23
S28	47	back adj off adj window	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:23
S29	35	back-off adj window	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:23
S30	101	back-off with window	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:25
S31	238	S19 S30	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:25
S32	73	S18 and S31	US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB	OR	ON	2005/10/03 17:26

| S33 | 45 | S32 and S27 and S25 | US-PGPUB; USPAT; EPO; DERWENT; IBM_TDB | OR | ON | 2005/10/03 17:40 |